

This listing of claims will replace all prior versions, and listings, of claims in the application:

IN THE CLAIMS:

Claim 1 (Currently Amended): A method for interfacing an information management system (IMS) program on an IMS system to a program in another program environment, said IMS program receiving and sending input and output messages having variant content, the method comprising the steps of:

scanning an IMS transaction with the IMS program on the IMS system; and

using results of said scanning to generate a program interface, the program interface providing means for invoking the IMS transaction, dynamically composing or reading said input or output messages, and dynamically converting data between the IMS transaction and the program in another program environment;

wherein the interface comprises

a transaction part which provides for invoking the IMS transaction;

a message part which provides for composing or reading an IMS message; and

a logical page (lpage) part which provides for dynamic composing or reading an IMS message.

Claim 2 (Cancelled)

Claim 3 (Original): The method of claim 1, further comprising the step of providing a runtime, the runtime comprising:

means for translating data types of the program in another program environment to data types used in a message to the IMS system;

means for composing the message to the IMS system;

means for translating data types used in a message from the IMS system to data types of the program in another program environment; and

means for reading the message from the IMS system.

Claim 4 (Original): The method of claim 3, wherein the runtime further comprises means for accessing the IMS transaction via the MQSeries messaging interface.

Claim 5 (Original): The method of claim 1, further comprising the step of compiling the program interface into the program in another program environment.

Claim 6 (Original): The method of claim 3, further comprising the step of compiling the runtime into the program in another program environment.

Claim 7 (Original): The method of claim 1, further comprising the step of providing means for converting code pages between the another program environment and the IMS system.

Claim 8 (Currently Amended): A computer program product readable by machine, tangibly embodying a program of instructions executable by the machine for interfacing an information management system (IMS) program on an IMS system to a program in another program environment, said IMS program receiving and sending input and output messages

having variant ~~context~~ content, the computer program product comprising:

instruction means for scanning an IMS transaction with the IMS program on the IMS system; and

instruction means for using results of said scanning to generate a program interface, the program interface providing means for invoking the IMS transaction and, dynamically composing or reading said input or output messages, dynamically converting data between the IMS transaction and the program in another program environment;

wherein the interface comprises

a transaction part which provides for invoking the IMS transaction;

a message part which provides for composing or reading an IMS message; and

a logical page (lpage) part which provides for dynamic composing or reading an IMS message.

Claim 9 (Cancelled)

Claim 10 (Original): The computer program product of claim 8, further comprising instructions means for providing a runtime, the runtime comprising:

means for translating data types of the program in another program environment to data types used in a message to the IMS system;

means for composing the message to the IMS system;

means for translating data types used in a message from the IMS system to data types of the program in another program environment; and

means for reading the message from the IMS system.

Claim 11 (Original): The computer program product of claim 10, wherein the runtime further comprises means for accessing the IMS transaction via the MQSeries messaging interface.

Claim 12 (Original): The computer program product of claim 8, further comprising instruction means for compiling the program interface into the program in another program environment.

Claim 13 (Original): The computer program product of claim 10, further comprising instruction means for compiling the runtime into the program in another program environment.

Claim 14 (Original): The computer program product of claim 8, further comprising instruction means for converting code pages between the another program environment and the IMS system.

Claim 15 (Currently Amended): A computer program product readable by machine, tangibly embodying a program of instructions executable by the machine for interfacing an information management system (IMS) program on an IMS system to a program in another program environment, said IMS program receiving and sending input and output messages having variant content, the computer program product comprising:

means for scanning an IMS transaction with the IMS program on the IMS system to dynamically compose or read said input or output messages and to produce dynamically a data description of said IMS transaction; and

means for using said data description to generate code for invoking said IMS transaction;

wherein the means for scanning includes

a transaction part which provides for invoking the IMS transaction;

a message part which provides for composing or reading an IMS message; and

a logical page (lpage) part of which provides dynamic composing or reading an IMS message.

Claim 16 (Original): The computer program product of claim 15, further comprising:

instruction means for using said data description to generate code to process message elements of said IMS transaction for use with the program in another language environment.

Claim 17 (Currently Amended): A computer program product readable by machine, tangibly embodying a program of instructions executable by the machine for interfacing an information management system (IMS) program on an IMS system to a program in another program environment, said IMS program receiving and sending input and output messages having variant content, the computer program product comprising:

instruction means for using information obtained from the IMS program on the IMS system to invoke an IMS transaction with the program on the IMS system; and

instruction means for composing or reading said input or output messages and for dynamically converting data between the IMS transaction and the program in another program environment;

wherein the instruction means for composing or reading includes

a transaction part which provides for invoking the IMS transaction;
a message part which provides for composing or reading an IMS message; and
a logical page (lpage) part which provides for dynamic composing or reading an IMS message.

Claim 18 (Original): The computer program product of claim 17, wherein the instruction means for converting further comprises:

instruction means for translating data types of the program in another program environment to data types used in a message to the IMS system;

instruction means for composing the message to the IMS system;

instruction means for translating data types used in a message from the IMS system to data types of the program in another program environment; and

instruction means for reading the message from the IMS system.

Claim 19 (Original): The computer program product of claim 17, wherein the instruction means for converting further comprises instruction means for accessing the IMS transaction via the MQSeries messaging interface.

Claim 20 (Original): The computer program product of claim 17, further comprising instruction means for converting code pages between the another program environment and the IMS system.

Claim 21 (Currently Amended): An article of manufacture ~~comprising a computer usable medium having computer readable program code means therein for executing the method steps of claim 1~~ readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for interfacing an information management system (IMS) program on an IMS system to a program in another program environment, said IMS program receiving and sending input and output messages having variant content, said method steps comprising:

scanning an IMS transaction with the IMS program on the IMS system; and
using results of said scanning to generate a program interface, the program interface providing means for invoking the IMS transaction, dynamically composing or reading said input or output messages, and dynamically converting data between the IMS transaction and the program in another program environment;

wherein the interface comprises
a transaction part which provides for invoking the IMS transaction;
a message part which provides for composing or reading an IMS message; and
a logical page (lpage) part which provides for dynamic composing or reading an IMS message.

Claim 22 (Currently Amended): A system for interfacing an information management system (IMS) program on an IMS system to a program in another program environment, said IMS program receiving and sending input and output messages having variant content, the method comprising:

means for scanning an IMS transaction with the IMS program on the IMS system;

and

means for using results of said scanning to generate a program interface, the program interface providing means for invoking the IMS transaction, dynamically composing or reading said input or output messages, and dynamically converting data between the IMS transaction and the program in another program environment;

wherein the interface comprises

a transaction part which provides for invoking the IMS transaction;

a message part which provides for composing or reading an IMS message; and

a logical page (lpage) part which provides for dynamic composing or reading an IMS message.

Claim 23 (Original): The system of claim 22, further comprising means for providing a runtime, the runtime comprising:

means for translating data types of the program in another program environment to data types used in a message to the IMS system;

means for composing the message to the IMS system;

means for translating data types used in a message from the IMS system to data types of the program in another program environment; and

means for reading the message from the IMS system.

Claim 24 (Currently Amended): A system for interfacing an information management system (IMS) program on an IMS system to a program in another program environment,

said IMS program receiving and sending input and output messages having variant content, the method comprising:

means for scanning an IMS transaction with the IMS program on the IMS system to dynamically compose or read said input or output messages and to produce dynamically a data description of said IMS transaction; and

means for using said data description to generate code for invoking said IMS transaction;

wherein the means for scanning includes

a transaction part which provides for invoking the IMS transaction;

a message part which provides for composing or reading an IMS message; and

a logical page (lpage) part which provides for dynamic composing or reading an IMS message.

Claim 25 (Original): The system of claim 24, further comprising:

means for using said data description to generate code to process message elements of said IMS transaction for use with the program in another language environment.

Claim 26 (Currently Amended): A system for interfacing an information management system (IMS) program on an IMS system to a program in another program environment, said IMS program receiving and sending input and output messages having variant content, the method comprising:

means for using information obtained from the IMS program on the IMS system to invoke an IMS transaction with the IMS program on the IMS system; and

means for composing or reading said input or output messages and for converting dynamically converting data between the IMS transaction and the program in another program environment;

wherein the means for composing or reading includes

a transaction part which provides for invoking the IMS transaction;

a message part which provides for composing or reading an IMS message; and

a logical page (lpage) part which provides for dynamic composing or reading an IMS message.

Claim 27 (Original): The system of claim 26, wherein the means for converting further comprises:

means for translating data types of the program in another program environment to data types used in a message to the IMS system;

means for composing the message to the IMS system;

means for translating data types used in a message from the IMS system to data types of the program in another program environment; and

means for interpreting the message from the IMS system.

Claim 28 (New): A method for interfacing an information management system (IMS) program on an IMS system to a program in another program environment, comprising:

scanning an IMS transaction with the IMS program, the IMS program being configured to receive and send input and output messages having variant content;

generating a program interface using results of the scanning;

invoking the IMS transaction;

dynamically composing or reading the input and output messages; and

dynamically converting data between the IMS transaction and the program in another program environment;

wherein, the program interface comprises a transaction part configured to perform the invoking, a message part configured to perform the dynamically composing or reading the input and output messages, and a logical page (lpage) part configured to perform the dynamically converting data.